# CORRIGENDUM Fume hood with duct connected to exhaust including the base cabinets for the New TL/OSL and Geochemistry Lab <u>Technical Specifications</u>

## PART A

Sr.No.	Item Description (Fume Hood for geochemistry wet lab)
	Quantity: 1 no
1	External Dimensions (outer): with two partition i.e. three cabins
	Total Width : 3650 mm (i.e. each cabin approx. 4 feet wide)
	Depth : 975 mm
	Height (including base cabinets) : 1700 mm
2.	Internal Dimensions (work Area): with two partition i.e. three cabins
	Width : 2850 mm
	Depth : 900 mm
	To be used for the acid digestion analysis, to keep the acid distillation plant and
	accessories.
	Acids used: HF, HNO <sub>3</sub> , HCl, HClO <sub>4</sub>
3.	Exhaust System (individual exhaust for each cabin (three in nos.))
	Air suction capacity-confirming to international face velocity norms which should
	ensure the smooth and immediate exhaust of fumes.

## PART B

Sr.No.	Item Description (Fume Hood for organic geochemistry and chemistry wet lab)
	Quantity: 2 no (one in each lab)
1	External Dimensions (outer):
	Total Width : 1250 mm
	Depth : 975 mm
	Height (including base cabinets) : 1700 mm
2.	Internal Dimensions (work Area):
	Width : 1100 mm

	Depth : 900 mm
	In organic geochemistry lab fume hood three gas nozzels (on both sides) should be
	provided in the fume hood. The entire (inner and outer) sides of the hood should be
	made of stainless steel only (SS 316).
	The specification for other one (chemistry wet lab) is same as part A.
	Exhaust System (individual exhaust for each cabin (two in nos.))
3.	Air suction capacity-confirming to international face velocity norms which should
	ensure the smooth and immediate exhaust of fumes.

#### Specification of material (Acid and corrosion resistant):

The **Fume hood with Duct** should have the following specifications:

- Acid resistant, heavy duty with noise level not exceeding 70 DP motors for exhaust (minimum 1 HP) should be provided with at least three year warranty and can run at least 12 hours without any break.
- All parts should be corrosion resistant and chemical resistant with long lasting construction.
- Interior and worktop made up of Polypropylene/Teflon coated for excellent chemical resistant properties except in organic geochemistry lab fume hood.
- Exterior Heavy duty SS 316 grade material coated with 1.2 mm thick epoxy powder (approx. 80 micron) except in organic geochemistry lab fume hood.
- Air baffling for a proper horizontal airflow pattern.
- Integral vapor-proof fluorescent lighting.
- Duplex electrical outlets should be available in 230V AC versions and two lighting sockets in each chamber.
- Chemical resistant ducting from fume hood to exhaust point with water proofing canopy.
- Vertical sliding safety toughened acrylic sash.
- Epoxy coated base cabinets with proper exhaust for the acid fumes except in organic geochemistry lab fume hood.
- Cabinets and drawers with partition made of corrosion free PP coated materials with locking system. It should be fitted with cabinet double door system front opening except in organic geochemistry lab fume hood.
- Fume wet scrubber having appropriate fans and motors, scrubber holding tank (capacity approximately 100L±20L) and carbon deposit tank and all necessary accessories.
- Level adjusting screws. Fume hood easily detachable for the relocation.
- All relevant parts should have ISO Certification and of International standards, and evaluated by the technical committee of the institute. All the parts should also show the make, model, company and the test certificate.
- Comprehensive warranty should be mentioned.

• The supply and installation of the entire system should be completed on a turnkey basis and any site preparation requirements would be completed by the supplier without any additional cost.

#### **Terms and Condition:**

• Warranty & Maintenance: The warranty of the equipment should be specified in detail which should indicate period, cost etc. Warranty for the instrument, support sub-systems and the computer systems from the date of satisfactory installation of the instrument. Response should be 'with-in 48 hours' after lodging a warranty call for troubleshooting. Machine down-time during warranty period should be allowed for extended warranty.

Separate quote for annual comprehensive maintenance of the instrument and subsystems including spares parts as and when required for five years of post warranty must be given.

- Routine Consumable components for the first three years of operation: Routine consumable components shall be supplied with the instrument for the first three years of the operation of the instrument.
- **Training:** Post-installation, application related training for two personnel at the factory site in operation, maintenance and application, after a period of exposure time on the instrument.
- Accessories: A comprehensive list of accessories with catalogue/part number and cost should be provided.
- List of Users: A complete list of Indian users and the systems that are being handled shall be provided with the name and address of the contact person against each user institute.
- Vendor must have India-based service organization, for which detailed documentation is required, including full disclosure of names, locations, training, and years of experience.
- Vendor must have local parts stocking, for which documentation is required.
- Availability of telephone support, including telephone numbers and email addresses, must be detailed.